



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,301	06/20/2003	Robert Cosmo Di Luccio	13700.1	7704
22827	7590	04/03/2006	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			TORRES VELAZQUEZ, NORCA LIZ	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

CU

Office Action Summary	Application No.	Applicant(s)	
	10/600,301	DI LUCCIO ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-68 is/are rejected.
- 7) ☒ Claim(s) 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 17, 2006 has been entered.

Response to Amendment

2. Claims 1-48 have been canceled and new claims 49-68 are pending in the present application.

Response to Arguments

3. Applicant's arguments with respect to the prior art of FOSS et al. have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claim 54 is objected to because of the following informalities: it depends on itself, the Examiner assumes that this is a typographical error and that Applicants meant it to be dependent on claim 53. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Art Unit: 1771

6. Claims 49-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 49 recites the limitation "the additive" in line 6. There is insufficient antecedent basis for this limitation in the claim. Claims 49-68 are rejected as being dependent on claim 49.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 49 is rejected under 35 U.S.C. 102(b) as being anticipated by NOHR et al. (US 4,923,914).

NOHR et al. discloses a surface-segregatable, melt-extrudable thermoplastic composition suitable for processing by melt extrusion to form a film having a differential, increasing concentration of an additive from the center of the fiber to the surface thereof. The composition includes at least one thermoplastic polymer and at least one defined additive. The preferred polymer is a polyolefin such as polyethylene or polypropylene. The thermoplastic composition is particularly useful in the formation of nonwoven webs, which are used in the construction of disposable absorbent products. (Abstract) The Examiner equates the presently claimed fiber-forming polymer to the thermoplastic polymer of the NOHR et al. invention and the second

Art Unit: 1771

component of the present invention to the siloxane-containing additive with at least two moieties, A and B. (Refer to claims)

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 49-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over FOSS et al. (US 6,723,428 B1) in view of MUMICK et al. (US 5,770,528).

FOSS et al. discloses an anti-microbial and/or anti-fungal synthetic fiber and various products made partially or wholly therefrom. The fiber comprises various thermoplastic polymers and additives in a mono-component or a bi-component form in either a core-sheath or side-by-side configurations. (Abstract) The reference teaches that anti-microbial and/or other agent(s) are held in the sheath and are exposed externally by suitable sizing. The reference teaches synthetic antimicrobial fibers comprising high tenacity polymers such as polyesters in one portion and hydrolysis resistance polymer in another portion with hydrophilic and anti-microbial additives. In some applications the latter portion can be deliberately made hydrolysis-vulnerable to allow "blooming" and enhanced access to anti-microbial additives in the course of several washings or extended uses. (Col. 12, lines 25-38 also refer to Col. 22, lines 30-51)

The reference teaches using the fibers of their invention in incontinent garments, including disposable diapers. (Col. 26, lines 18-37; also refer to Col. 1, lines 30-38)

Art Unit: 1771

While FOSS teaches “blooming” which will provide the migration of an additive to a surface of a fiber, the reference is silent to the claimed positive displacement carrier.

MUMICK et al. is directed to binder compositions, fibrous substrates, water-dispersible products and thermoformable products containing methylated hydroxypropylcellulose (m-HPC). (Abstract) The reference teaches the use of such materials in personal care products such as diapers, tampons, feminine pads, among others. (Refer to Col. 3, lines 9-12) The reference further teaches that the m-HPC polymers of their invention can be thermally processed to produce fibers. (Col. 3, lines 21-23) MUMICK et al. further teaches blend formulations that comprise m-HPC mixed with one or more hydrophobic polymers including acrylic base polymers. Such blends possess properties (i.e., ion sensitive solubility, trigger temperature, dispersibility in cold water, etc.) suitable for use in water-dispersible products. The blend formulations may contain other components such as lubricants. The polymer compositions may incorporate plasticizer such as glycerol and polyethylene glycol. (Refer to Col. 6, line 37 through Col. 7, lines 1-13) The composition may also contain perfumes, surface active agents, fillers. Water soluble or water dispersible binding agents such as polyvinyl alcohol or aqueous dispersions, can be added to the binder composition solution in order to obtain bonded fabrics having various desired properties. (Col. 8, lines 55-64)

The Examiner equates the m-HPC of MUMICK to the claimed water-soluble polymer claimed in the present invention, the hydrophobic acrylic based polymers disclosed in Col. 6, lines 40-47 to the presently claimed positive displacement carrier.

Art Unit: 1771

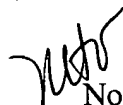
Since both references are directed to materials suitable for the construction of disposable diapers, the purpose disclosed by MUMICK et al. would have been recognized in the pertinent art of FOSS et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the fibers of FOSS et al. and provide them with the m-HPC blends taught by MUMICK et al. with the motivation of producing materials that are stable in body fluids with high ionic content or fluids around body temperature, while being flushable and water-dispersible in toilet conditions as disclosed by MUMICK et al. (Col. 3, lines 38-45)

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

March 29, 2006